

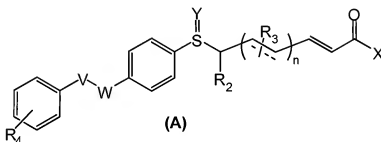
In the Claims:

This listing of claims will replace all prior versions, and listings of the claims in the application.

Please amend claims 41-44 and 53-61, cancel claims 51 and 52 without prejudice to their presentation in another application, and add new claims 64-71 as follows.

1-40. (canceled).

41. (currently amended) A compound of general formula (A)



in which:

R^2 and R^3 are independently hydrogen, (C_1-C_{12}) alkyl, substituted (C_1-C_{12}) alkyl, or unsaturated (C_2-C_{12}) comprising one or more $C=C$ bond or $C\equiv C$ bond, $(C_6$ or $C_{10})$ aryl or $(C_6$ or $C_{10})$ heteroaryl, or a combination thereof to form a linked or fused ring system, or (C_1-C_{10}) alkoxy, (C_1-C_{10}) thioalkoxy, hydroxyl, (C_1-C_{10}) hydroxylalkyl, halo, (C_1-C_{10}) haloalkyl, cyano, nitro, amino, amido, (C_1-C_{10}) alkylamino, (C_1-C_{10}) alkylcarbonyloxy, (C_1-C_{10}) alkoxycarbonyl, (C_1-C_{10}) alkylcarbonyl, (C_1-C_{10}) alkylthiocarbonyl, (C_1-C_{10}) alkylsulfonylamino, aminosulfonyl, (C_1-C_{10}) alkylsulfinyl, or (C_1-C_{10}) alkylsulfonyl, in which the saturated or an unsaturated hydrocarbon chain is optionally interrupted by O, S, NR, CO, C(NR), $N(R)SO_2$, $SO_2N(R)$, $N(R)C(O)O$, $OC(O)N(R)$, $N(R)C(O)N(R)$, $OC(O)$, $C(O)O$, OSO_2 , SO_2O , or $OC(O)O$, where R is independently hydrogen, (C_1-C_{10}) alkyl, (C_1-C_{10}) alkenyl, (C_1-C_{10}) alkynyl, (C_1-C_{10}) alkoxy, (C_1-C_{10}) hydroxylalkyl, hydroxyl, (C_1-C_{10}) haloalkyl, where each of the saturated or unsaturated hydrocarbon chains are optionally substituted with (C_1-C_{10}) alkyl, (C_1-C_{10}) alkenyl, (C_1-C_{10}) alkynyl, (C_1-C_{10}) alkoxy, hydroxyl, hydroxyl, (C_1-C_{10}) hydroxylalkyl, halo, (C_1-C_{10}) haloalkyl,

amino, (C₁-C₁₀) alkylcarbonyloxy, (C₁-C₁₀) alkoxycarbonyl, (C₁-C₁₀) alkylcarbonyl, (C₁-C₁₀) alkylsulfonylamino, aminosulfonyl, or (C₁-C₁₀) alkylsulfonyl, or R² and R³ optionally form a (C₆ or C₁₀) aryl, (C₆ or C₁₀) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C₃-C₈) heterocycloalkenyl, (C₅-C₈) cycloalkene ring, (C₅-C₈) cycloalkyl, (C₅-C₈) heterocycloalkyl linked or fused ring system, optionally containing up to 3 heteroatoms, e.g. oxygen, nitrogen, sulphur or phosphorous; heteroatoms selected from oxygen, nitrogen, sulphur, and phosphorous;

R₄ is hydrogen, unsubstituted or substituted C₁-C₁₀ alkyl, an unsaturated hydrocarbon chain of up to ten carbon atoms comprising one or more carbon-carbon double bonds, C₆ or C₁₀ aryl, a 5 to 10 membered heterocyclic group, C₁-C₁₀ alkoxy, C₁-C₁₀ thioalkoxy, hydroxyl, halo, cyano, nitro, amino, amido, (C₁-C₁₀ alkyl)thiocarbonyl, (C₁-C₁₀ alkyl)sulfonylamino, aminosulfonyl, C₁-C₁₀ alkylsulfinyl, C₁-C₁₀ alkylsulfonyl, or a saturated or unsaturated C₃-C₁₂ hydrocarbon chain interrupted by O, S, NR, CO, C(NR), C(R)SO₂, or OC(O)O, wherein R is as defined above and the saturated or unsaturated hydrocarbon chain is optionally substituted as defined above;

n is equal to 0, 1 or 2[[,]];]

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, where each ~~group~~ R is independently hydrogen, C₁-C₆ alkyl or substituted C₁-C₆ alkyl[[,]];]

Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, ~~OR or C~~, where R is C₁-C₆ alkyl, or substituted C₁-C₆ alkyl[[,]];]

in which V and W are as follows:

a single carbon-carbon bond[[,]];]

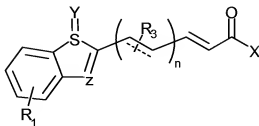
V is CR and W is N, saturated or unsaturated[[,]];]

V is N and W is CR, saturated or unsaturated[[,]];]

a linkage of the form VW or WV = RRC-O or RRC-S, wherein V ~~and/or~~ and W are each optionally substituted (C₁-C₆) alkyl, C₆ aryl or heterocycle[[,]];]

in which each ~~group~~ R is independently defined.

42. (currently amended) A compound of general formula (B1)



(B1)

in which:

R^1 is (C_6 or C_{10}) aryl, (C_6 or C_{10}) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C_6 or C_{10}) heteroaryl, (C_3 - C_8) heterocycloalkenyl, (C_5 - C_8) cycloalkene ring, (C_5 - C_8) cycloalkyl, (C_5 - C_8) heterocycloalkyl or a combination thereof to form a linked or fused ring system, the cyclic moiety being optionally substituted with (C_1 - C_{10}) alkyl, (C_1 - C_{10}) alkenyl, (C_1 - C_{10}) alkynyl, (C_1 - C_{10}) alkoxy, (C_1 - C_{10}) thioalkoxy, hydroxyl, (C_1 - C_{10}) hydroxylalkyl, halo, (C_1 - C_{10}) haloalkyl, amino, amido, (C_1 - C_{10}) alkylamino, (C_1 - C_{10}) alkylcarbonyloxy, (C_1 - C_{10}) alkoxycarbonyl, (C_1 - C_{10}) alkylcarbonyl, (C_1 - C_{10}) alkylthiocarbonyl, (C_1 - C_{10}) alkylsulfonylamino, aminosulfonyl, (C_1 - C_{10}) alkylsulfinyl, or (C_1 - C_{10}) alkylsulfonyl,

R^3 is hydrogen, (C_1 - C_{12}) alkyl, substituted (C_1 - C_{12}) alkyl, or unsaturated (C_2 - C_{12}) comprising one or more $C=C$ bond or $C\equiv C$ bond, (C_6 or C_{10}) aryl or (C_6 or C_{10}) heteroaryl, or a combination thereof to form a linked or fused ring system, or (C_1 - C_{10}) alkoxy, (C_1 - C_{10}) thioalkoxy, hydroxyl, (C_1 - C_{10}) hydroxylalkyl, halo, (C_1 - C_{10}) haloalkyl, cyano, nitro, amino, amido, (C_1 - C_{10}) alkylamino, (C_1 - C_{10}) alkylcarbonyloxy, (C_1 - C_{10}) alkoxycarbonyl, (C_1 - C_{10}) alkylcarbonyl, (C_1 - C_{10}) alkylthiocarbonyl, (C_1 - C_{10}) alkylsulfonylamino, aminosulfonyl, (C_1 - C_{10}) alkylsulfinyl, or (C_1 - C_{10}) alkylsulfonyl, in which the saturated or an unsaturated hydrocarbon chain is optionally interrupted by O, S, NR, CO, C(NR), N(R)SO₂, SO₂N(R), N(R)C(O)O, OC(O)N(R), N(R)C(O)N(R), OC(O), C(O)O, OSO₂, SO₂O, or OC(O)O, where R is independently hydrogen, (C_1 - C_{10}) alkyl, (C_1 - C_{10}) alkenyl, (C_1 - C_{10}) alkynyl, (C_1 - C_{10}) alkoxy, (C_1 - C_{10}) hydroxylalkyl, hydroxyl, (C_1 - C_{10}) haloalkyl, where each of the saturated or unsaturated hydrocarbon chains are optionally substituted with (C_1 - C_{10}) alkyl, (C_1 - C_{10}) alkenyl, (C_1 - C_{10}) alkynyl, (C_1 - C_{10}) alkoxy, hydroxyl, hydroxyl, (C_1 - C_{10}) hydroxylalkyl, halo, (C_1 - C_{10}) haloalkyl,

amino, (C₁-C₁₀) alkylcarbonyloxy, (C₁-C₁₀) alkoxy carbonyl, (C₁-C₁₀) alkylcarbonyl, (C₁-C₁₀) alkylsulfonylamino, aminosulfonyl, or (C₁-C₁₀) alkylsulfonyl,

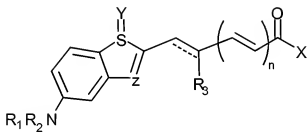
n is equal to 0, 1 or 2[[,]];]

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR₃ where each group R is independently hydrogen, C₁-C₆ alkyl or substituted C₁-C₆ alkyl[[,]];]

Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, ~~OR or C₁-C₆ alkyl~~, where R is C₁-C₆ alkyl, or substituted C₁-C₆ alkyl[[,]];]

~~in which n is equal to zero, one or two; Z is a one atom linkage of N, CH, or CR or a two-atom linkage of varying combinations of atoms of C, CH, CR, O, N, S, SO, SO₂, wherein R is C₁-C₆ alkyl or substituted C₁-C₆ alkyl.~~

43. (currently amended) A compound of ~~claim 41, in which the compounds are of~~ general formula (B2)



(B2)

in which:

R¹ is (C₆ or C₁₀) aryl, (C₆ or C₁₀) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C₆ or C₁₀) heteroaryl, (C₃-C₈) heterocycloalkenyl, (C₅-C₈) cycloalkene ring, (C₅-C₈) cycloalkyl, (C₅-C₈) heterocycloalkyl or a combination thereof to form a linked or fused ring system, the cyclic moiety being optionally substituted with (C₁-C₁₀) alkyl, (C₁-C₁₀) alkenyl, (C₁-C₁₀) alkynyl, (C₁-C₁₀) alkoxy, (C₁-C₁₀) thioalkoxy, hydroxyl, (C₁-C₁₀) hydroxylalkyl, halo, (C₁-C₁₀) haloalkyl, amino, amido, (C₁-C₁₀) alkylamino, (C₁-C₁₀) alkylcarbonyloxy, (C₁-C₁₀) alkoxy carbonyl, (C₁-C₁₀) alkylcarbonyl, (C₁-C₁₀) alkylthiocarbonyl,

(C₁-C₁₀) alkylsulfonylamino, aminosulfonyl, (C₁-C₁₀) alkylsulfinyl, or (C₁-C₁₀) alkylsulfonyl,

R² and R³ are each independently hydrogen, (C₁-C₁₂) alkyl, substituted (C₁-C₁₂) alkyl, or unsaturated (C₂-C₁₂) comprising one or more C=C bond or C≡C bond, (C₆ or C₁₀) aryl or (C₆ or C₁₀) heteroaryl, or a combination thereof to form a linked or fused ring system, or (C₁-C₁₀) alkoxy, (C₁-C₁₀) thioalkoxy, hydroxyl, (C₁-C₁₀) hydroxylalkyl, halo, (C₁-C₁₀) haloalkyl, cyano, nitro, amino, amido, (C₁-C₁₀) alkylamino, (C₁-C₁₀) alkylcarbonyloxy, (C₁-C₁₀) alkoxycarbonyl, (C₁-C₁₀) alkylcarbonyl, (C₁-C₁₀) alkylthiocarbonyl, (C₁-C₁₀) alkylsulfonylamino, aminosulfonyl, (C₁-C₁₀) alkylsulfinyl, or (C₁-C₁₀) alkylsulfonyl, in which the saturated or an unsaturated hydrocarbon chain is optionally interrupted by O, S, NR, CO, C(NR), N(R)SO₂, SO₂N(R), N(R)C(O)O, OC(O)N(R), N(R)C(O)N(R), OC(O), C(O)O, OSO₂, SO₂O, or OC(O)O, where R is independently hydrogen, (C₁-C₁₀) alkyl, (C₁-C₁₀) alkenyl, (C₁-C₁₀) alkynyl, (C₁-C₁₀) alkoxy, (C₁-C₁₀) hydroxylalkyl, hydroxyl, (C₁-C₁₀) haloalkyl, where each of the saturated or unsaturated hydrocarbon chains are optionally substituted with (C₁-C₁₀) alkyl, (C₁-C₁₀) alkenyl, (C₁-C₁₀) alkynyl, (C₁-C₁₀) alkoxy, hydroxyl, hydroxyl, (C₁-C₁₀) hydroxylalkyl, halo, (C₁-C₁₀) haloalkyl, amino, (C₁-C₁₀) alkylcarbonyloxy, (C₁-C₁₀) alkoxycarbonyl, (C₁-C₁₀) alkylcarbonyl, (C₁-C₁₀) alkylsulfonylamino, aminosulfonyl, or (C₁-C₁₀) alkylsulfonyl[[,]]; or

R² and R³ optionally form a (C₆ or C₁₀) aryl, (C₆ or C₁₀) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C₃-C₈) heterocycloalkenyl, (C₅-C₈) cycloalkene ring, (C₅-C₈) cycloalkyl, (C₅-C₈) heterocycloalkyl linked or fused ring system, optionally containing up to 3 heteroatoms, e.g. oxygen, nitrogen, sulphur or phosphorous[[,]]; or

R¹ and R² optionally form a (C₆ or C₁₀) aryl, (C₆ or C₁₀) arylalkyl, (C₆ or C₁₀) heteroaryl, (C₃-C₈) heterocycloalkenyl, (C₅-C₈) cycloalkene ring, (C₅-C₈) cycloalkyl, (C₅-C₈) heterocycloalkyl linked or fused ring system, optionally the ring formed is further substituted with a group R¹ as defined above, or the ring formed is fused to a further C₆ aryl group which is optionally substituted with a group R¹ as defined above, or a group R¹R²N, with R¹ and R² as defined above,

n is equal to 0, 1 or 2,

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, where each group R is independently hydrogen, C₁-C₆ alkyl or substituted C₁-C₆ alkyl, and

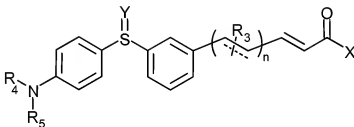
Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, OR or C, where R is C₁-C₆ alkyl or substituted C₁-C₆ alkyl,

in which n is equal to zero, one or two, Y is no atom present, O or O₂ or NR and Z = CR or N;

X = NHOH, OH, NROR, CROH;

and Z is a one atom linkage of N, ~~or C~~ CH or CR, or a two-atom linkage of varying combinations of atoms of C, CH, CR, O, N, S, SO, SO₂, and in which each group R is independently defined C₁-C₆ alkyl or substituted C₁-C₆ alkyl.

44. (currently amended) A compound of ~~claim 41, in which the compounds are of~~ general formula (C)



(C)

in which:

R³ is hydrogen, (C₁-C₁₂) alkyl, substituted (C₁-C₁₂) alkyl, or unsaturated (C₂-C₁₂) comprising one or more C=C bond or C≡C bond, (C₆ or C₁₀) aryl or (C₆ or C₁₀) heteroaryl, or a combination thereof to form a linked or fused ring system, or (C₁-C₁₀) alkoxy, (C₁-C₁₀) thioalkoxy, hydroxyl, (C₁-C₁₀) hydroxylalkyl, halo, (C₁-C₁₀) haloalkyl, cyano, nitro, amino, amido, (C₁-C₁₀) alkylamino, (C₁-C₁₀) alkylcarbonyloxy, (C₁-C₁₀) alkoxy carbonyl, (C₁-C₁₀) alkylcarbonyl, (C₁-C₁₀) alkylthiocarbonyl, (C₁-C₁₀) alkylsulfonylamino, aminosulfonyl, (C₁-C₁₀) alkylsulfinyl, or (C₁-C₁₀) alkylsulfonyl, in which the saturated or an unsaturated hydrocarbon chain is optionally interrupted by O, S, NR, CO, C(NR), N(R)SO₂, SO₂N(R), N(R)C(O)O, OC(O)N(R), N(R)C(O)N(R), OC(O), C(O)O, OSO₂, SO₂O, or OC(O)O, where R is independently hydrogen, (C₁-C₁₀) alkyl, (C₁-C₁₀) alkenyl, (C₁-C₁₀) alkynyl, (C₁-C₁₀) alkoxy, (C₁-C₁₀) hydroxylalkyl, hydroxyl, (C₁-C₁₀) haloalkyl, where each of the saturated or unsaturated hydrocarbon chains are optionally substituted with (C₁-C₁₀) alkyl, (C₁-C₁₀) alkenyl, (C₁-C₁₀)

alkynyl, (C₁-C₁₀) alkoxy, hydroxyl, hydroxyl, (C₁-C₁₀) hydroxylalkyl, halo, (C₁-C₁₀) haloalkyl, amino, (C₁-C₁₀) alkylcarbonyloxy, (C₁-C₁₀) alkoxycarbonyl, (C₁-C₁₀) alkylcarbonyl, (C₁-C₁₀) alkylsulfonylamino, aminosulfonyl, or (C₁-C₁₀) alkylsulfonyl[.];

n is equal to 0, 1 or 2[.];

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, where each group R is independently hydrogen, C₁-C₆ alkyl or substituted C₁-C₆ alkyl[.]; and

Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, OR or C, where R is C₁-C₆ alkyl or substituted C₁-C₆ alkyl[.]; and

R⁴ and R⁵ are each independently hydrogen, unsubstituted or substituted C₁-C₁₀ alkyl, an unsaturated hydrocarbon chain of up to ten carbon atoms comprising one or more carbon-carbon double bonds, C₆ or C₁₀ aryl, a 5- to 10-membered heterocyclic group, C₁-C₁₀ alkoxy, C₁-C₁₀ thioalkoxy, hydroxyl, halo, cyano, nitro, amino, amido, (C₁-C₁₀ alkyl)carbonyloxy, (C₁-C₁₀ alkoxy)carbonyl, (C₁-C₁₀ alkyl)carbonyl, (C₁-C₁₀ alkyl)thiocarbonyl, (C₁-C₁₀ alkyl)sulfonylamino, aminosulfonyl, C₁-C₁₀ alkylsulfinyl, C₁-C₁₀ alkylsulfonyl, or a saturated or unsaturated C₃-C₁₂ hydrocarbon chain interrupted by O, S, NR, CO, C(NR), N(R)SO₂, SO₂N(R), N(R)C(O)O, OC(O)N(R), N(R)C(O)N(R), OC(O), C(O)O, OSO₂, SO₂O or OC(O)O_x where R is as defined above and the saturated or unsaturated hydrocarbon chain is optionally substituted as defined above[.];

~~in which Y is equal to no atom, O or O₂ or NR and n is equal to zero, one or two and X is equal to NHOH, OH, NROR, CRROH, and in which each group R is independently defined.~~

45. (previously presented) A compound as claimed in claim 41, in which R² and R³ are both Hydrogen.

46. (previously presented) A compound as claimed in claim 41, in which R² is methyl (CH₃) and R³ is Hydrogen.

47. (previously presented) A compound as claimed in claim 41, in which R² is Hydrogen and R³ is methyl (CH₃).

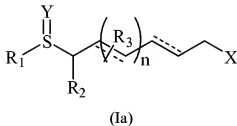
48. (previously presented) A compound as claimed in claim 41, in which R^2 and R^3 are both methyl (CH_3).

49. (previously presented) A compound as claimed in claim 41, in which X is -OH, $-OC_2H_5$, $-OCH_3$, or NHOH.

50. (previously presented) A compound as claimed in claim 41, in which Y is represented by one or two oxygen atoms.

51-52. (canceled).

53. (currently amended) A compound ~~as claimed in claim 41, in which~~ of general formula (Ia)



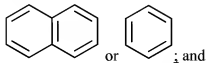
wherein:

R^2 and R^3 are both Hydrogen (H)[[.]];

Y is ~~equal to~~ two oxygen atoms; and

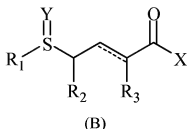
n is ~~equal to 1, 1;~~

R^1 is ~~one of~~



X is ~~one of~~ -OH, $-CH_3$, $-OC_2H_5$ or NHOH.

54. (currently amended) A compound ~~as claimed in claim 41~~, of general formula (B) in which



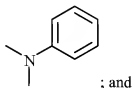
wherein:

R^2 and R^3 are both methyl (CH_3)[[.]]; and

Y is ~~equal to~~ zero oxygen atoms[[.]]; and

n is ~~equal to~~ zero[[.]]; and

R^1 is



X is $-\text{OCH}_3$, $-\text{OC}_2\text{H}_5$ or $-\text{OH}$.

55. (currently amended) A compound ~~as claimed in claim 41, claim 42, claim 43 or claim 44~~ which is:

6-Phenylsulfanyl-hexa-2,4-dienoic acid (6a);

6-(4-Chloro-phenylsulfanyl)-hexa-2,4-dienoic acid methyl ester (6b);

6-Phenylsulfanyl-hexa-2,4-dienoic acid methyl ester (6c);

6-(4-Dimethylamino-phenylsulfanyl)-hexa-2,4-dienoic acid methyl ester (6d);

6-(4-Methoxy-phenylsulfanyl)-hexa-2,4-dienoic acid methyl ester (6e);

6-(4-Chloro-phenylsulfanyl)-hexa-2,4-dienoic acid hydroxyamide (7b);

6-(4-Dimethylamino-phenylsulfanyl)-hexa-2,4-dienoic acid hydroxyamide (7c);

6-Phenylsulfanyl-hexa-2,4-dienoic acid methyl ester (8a);

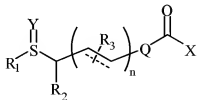
6-(4-Chloro-benzensulfanyl)-hexa-2,4-dienoic acid methyl ester (8b);

6-(4-Methoxy-benzenesulfinyl)-hexa-2,4-dienoic acid methyl ester (8c),
6-Benzenesulfinyl-hexa-2,4-dienoic acid (8d),
6-(4-Chloro-benzenesulfinyl)-hexa-2,4-dienoic acid hydroxyamide (9a),
6-(4-Methoxy-benzenesulfinyl)-hexa-2,4-dienoic acid hydroxyamide (9b),
6-Benzenesulfonyl-hexa-2,4-dienoic acid (10a),
6-Benzenesulfonyl-hexa-2,4-dienoic acid methyl ester (10b),
6-Benzenesulfonyl-hexa-2,4-dienoic acid hydroxyamide (11a),
6-(Naphthalen-2-ylsulfanyl)-hexa-2,4-dienoic acid methyl ester (13b),
6-(Naphthalen-2-ylsulfanyl)-hexa-2,4-dienoic acid hydroxyamide (14a),
4-(4-Dimethylamino-phenylsulfanyl)-2-methyl-pent-2-enoic acid methyl ester (21b),
6-(4-Dimethylamino-phenylsulfanyl)-4-methyl-hepta-2,4-dienoic acid ethyl ester (24c),
6-(4-Dimethylamino-phenylsulfanyl)-4-methyl-hepta-2,4-dienoic acid hydroxyamide (25c),
6-(4-Chloro-phenylsulfanyl)-hexanoic acid methyl ester (28b),
7-(4-Chloro-phenylsulfanyl)-heptanoic acid ethyl ester (28c),
6-(4-Dimethylamino-phenylsulfanyl)-hexanoic acid methyl ester (28e),
6-(4-((4-Chlorobenzyl)-methylamino)-phenylsulfanyl)-hexanoic acid methyl ester (28f),
6-(4-(4-Chlorobenzenesulfonylamino)-phenylsulfanyl)-hexanoic acid methyl ester (28g),
6-(4-Bromo-phenylsulfanyl)-hexanoic acid methyl ester (28h),
6-(4'-Chloro-biphenyl-4-ylsulfanyl)-hexanoic acid methyl ester (28i),
6-(4-Chloro-phenylsulfanyl)-hexanoic acid hydroxyamide (29b),
6-(4-Dimethylamino-phenylsulfanyl)-hexanoic acid hydroxamide (29c),
6-(4-(4-Chlorobenzenesulfonylamino)-phenylsulfanyl)-hexanoic acid hydroxamide (29g),
6-(4'-Chloro-biphenyl-4-ylsulfanyl)-hexanoic acid hydroxamide (29i),
6-(4-Chloro-benzenesulfinyl)-hexanoic acid methyl ester (30b),
7-(4-Chloro-benzenesulfinyl)-heptanoic acid ethyl ester (30c),
6-(4-Dimethylamino-benzenesulfinyl)-hexanoic acid methyl ester (30e),

6-(4-((4-Chlorobenzyl)-methylamino)-benzenesulfinyl)-hexanoic acid methyl ester (30f),
6-(4'-Chloro-biphenyl-4-ylsulfinyl)-hexanoic acid methyl ester (30i),
6-(4-Chloro-benzenesulfinyl)-hexanoic acid hydroxyamide (31a),
7-(4-Chloro-benzenesulfinyl)-heptanoic acid hydroxyamide (31c),
6-(4-Dimethylamino-benzenesulfinyl)-hexanoic acid hydroxyamide (31e),
6-(4-((4-Chlorobenzyl)-methylamino)-benzenesulfinyl)-hexanoic acid hydroxamide (31f),
6-(4'-Chloro-biphenyl-4-sulfinyl)-hexanoic acid hydroxyamide (31i),
(2E,4E)-5-(5-Dimethylamino-benzo[*b*]thiophen-2-yl)-penta-2,4-dienoic acid ethyl ester (41a),
(2E,4E)-5-(5-Dimethylaminobenzo[*b*]thiophen-2-yl)-penta-2,4-dienoic acid hydroxamide (42a),
(E)-3-(3-(4-Dimethylamino-phenyl)sulfinyl)-phenyl)-acrylic acid ethyl ester (51a.), or
(E)-3-(3-(4-Dimethylamino-phenyl)sulfinyl)-phenyl)-*N*-hydroxy-acrylamide (52a).

56. (currently amended) A pharmaceutical composition comprising a compound of ~~any one~~ of claims 41 to 44 55, and optionally a pharmaceutically acceptable adjuvant and/or diluent.

57. (currently amended) A method of inhibiting HDAC activity in an individual suffering from a disease or condition related to aberrant HDAC activity comprising administering to said individual a therapeutically effective amount of a compound of general formula (I):



(I)

in which:

R¹ is (C₆ or C₁₀) aryl, (C₆ or C₁₀) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C₆ or C₁₀) heteroaryl, (C₃-C₈) heterocycloalkenyl, (C₅-C₈) cycloalkene ring, (C₅-C₈) cycloalkyl, (C₅-C₈) heterocycloalkyl or a combination thereof to form a linked or fused ring system, the cyclic moiety being optionally substituted with (C₁-C₁₀) alkyl, (C₁-C₁₀) alkenyl, (C₁-C₁₀) alkynyl, (C₁-C₁₀) alkoxy, (C₁-C₁₀) thioalkoxy, hydroxyl, (C₁-C₁₀) hydroxylalkyl, halo, (C₁-C₁₀) haloalkyl, amino, amido, (C₁-C₁₀) alkylamino, (C₁-C₁₀) alkylcarbonyloxy, (C₁-C₁₀) alkoxy carbonyl, (C₁-C₁₀) alkylcarbonyl, (C₁-C₁₀) alkylthiocarbonyl, (C₁-C₁₀) alkylsulfonylamino, aminosulfonyl, (C₁-C₁₀) alkylsulfinyl, or (C₁-C₁₀) alkylsulfonyl,

R² and R³ are each independently hydrogen, (C₁-C₁₂) alkyl, ~~substituted (C₁-C₁₂) alkyl, or unsaturated (C₂-C₁₂) comprising one or more C=C bond or C≡C bond, (C₆ or C₁₀) aryl or (C₆ or C₁₀) heteroaryl, or a combination thereof to form a linked or fused ring system, or (C₁-C₁₀) alkoxy, (C₁-C₁₀) thioalkoxy, hydroxyl, (C₁-C₁₀) hydroxylalkyl, halo, or (C₁-C₁₀) haloalkyl~~[[,],], ~~cyano, nitro, amino, amido, (C₁-C₁₀) alkylamino, (C₁-C₁₀) alkylcarbonyloxy, (C₁-C₁₀) alkoxy carbonyl, (C₁-C₁₀) alkylcarbonyl, (C₁-C₁₀) alkylthiocarbonyl, (C₁-C₁₀) alkylsulfonylamino, aminosulfonyl, (C₁-C₁₀) alkylsulfinyl, or (C₁-C₁₀) alkylsulfonyl, in which the saturated or an unsaturated hydrocarbon chain is optionally interrupted by O, S, NR, CO, C(NR), N(R)SO₂, SO₂N(R), N(R)C(O)O, OC(O)N(R), N(R)C(O)N(R), OC(O), C(O)O, OSO₂, SO₂O, or OC(O)O, where R is independently hydrogen, (C₁-C₁₀) alkyl, (C₁-C₁₀) alkenyl, (C₁-C₁₀) alkynyl, (C₁-C₁₀) alkoxy, (C₁-C₁₀) hydroxylalkyl, hydroxyl, (C₁-C₁₀) haloalkyl, where each of the saturated or unsaturated hydrocarbon chains are optionally substituted with (C₁-C₁₀) alkyl, (C₁-C₁₀) alkenyl, (C₁-C₁₀) alkynyl, (C₁-C₁₀) alkoxy, hydroxyl, hydroxyl, (C₁-C₁₀) hydroxylalkyl, halo, (C₁-C₁₀) haloalkyl, amino, (C₁-C₁₀) alkylcarbonyloxy, (C₁-C₁₀) alkoxy carbonyl, (C₁-C₁₀) alkylcarbonyl, (C₁-C₁₀) alkylsulfonylamino, aminosulfonyl, or (C₁-C₁₀) alkylsulfonyl, or~~

R² and R³ optionally form a (C₆ or C₁₀) aryl, (C₆ or C₁₀) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C₃-C₈) heterocycloalkenyl, (C₅-C₈) cycloalkene ring, (C₅-C₈) cycloalkyl, (C₅-C₈) heterocycloalkyl linked or fused ring system, optionally containing up to 3 heteroatoms, e.g. oxygen, nitrogen, sulphur or phosphorous, or heteroatoms selected from oxygen, nitrogen, sulphur, and phosphorous; or

R¹ and R² optionally form a (C₆ or C₁₀) aryl, (C₆ or C₁₀) arylalkyl, (C₆ or C₁₀)

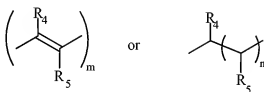
heteroaryl, (C₃-C₈) heterocycloalkenyl, (C₅-C₈) cycloalkene ring, (C₅-C₈) cycloalkyl, (C₅-C₈) heterocycloalkyl linked or fused ring system, optionally the ring formed is further substituted with a group R¹ as defined above, or the ring formed is fused to a further C₆ aryl group which is optionally substituted with a group R¹ as defined above, or a group R¹R²N, with R¹ and R² as defined above[[.]];

n is equal to 0, 1 or 2[[.]];

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, where wherein each group R is independently hydrogen, C₁-C₆ alkyl or substituted C₁-C₆ alkyl[[.]]; and

Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, ~~OR or C~~, where R is C₁-C₆ alkyl, or substituted C₁-C₆ alkyl[[.]];

Q represents



wherein;

m is an integer from 1 to 4;

n is an integer from 1 to 8; and

R⁴ and R⁵ each independently ~~represents~~ represent hydrogen, or unsubstituted or substituted C₁-C₁₀ alkyl[[.]]; ~~an unsaturated hydrocarbon chain of up to ten carbon atoms comprising one or more carbon-carbon double bonds, C₆- or C₁₀-aryl, a 5- to 10-membered heterocyclic group, C₁-C₁₀-alkoxy, C₁-C₁₀-thioalkoxy, hydroxyl, halo, cyano, nitro, amino, amido, (C₁-C₁₀-alkyl)carbonyloxy, (C₁-C₁₀-alkoxy)carbonyl, (C₁-C₁₀-alkyl)carbonyl, (C₁-C₁₀-alkyl)thiocarbonyl, (C₁-C₁₀-alkyl)sulfonylamino, aminosulfonyl, C₁-C₁₀-alkylsulfinyl, C₁-C₁₀-alkylsulfonyl, or a saturated or unsaturated C₂-C₁₂-hydrocarbon chain interrupted by O, S, NR, CO, C(NR), N(R)SO₂, SO₂N(R), N(R)C(O)O, OC(O)N(R), N(R)C(O)N(R), OC(O), C(O)O, OSO₂, SO₂O or OC(O)O where R is as defined above and the saturated or unsaturated hydrocarbon chain is optionally substituted as defined above;~~

or a pharmaceutically acceptable salt thereof.

58. (currently amended) A ~~The~~ method of claim 57 ~~wherein said disease or condition related to aberrant HDAC activity is selected from~~ treating cancer[.]; cardiac hypertrophy[.]; a haematological disorder[.]; an auto-immune disease[.]; a neurological condition[.]; a genetic-related metabolic disorder[.]; a peroxisome biogenesis disorder[.]; adrenoleukodystrophy[.]; ~~stimulating hematopoietic cells ex vivo, ameliorating and~~ a protozoal parasitic infection[.], accelerating wound healing, or protecting hair follicles ~~in an individual comprising administering to said individual a compound of claim 57.~~

59. (currently amended) The method of claim 58, in which the cancer is selected from ~~the group consisting of~~ breast cancer[.]; colon cancer[.]; colorectal cancer[.]; esophageal cancer[.]; glioma[.]; lung small and non-small cell cancers[.]; leukaemia neuroblastoma[.]; prostate cancer[.]; thoracic cancer[.]; melanoma[.]; ovarian cancer[.]; cervical cancer; and renal cancer.

60. (currently amended) The method of claim 58 in which the haematological disorder is selected from ~~a~~-hemoglobinopathy[.]; thalassaemia[.]; ~~or~~ and sickle cell anemia.

61. (currently amended) The method of claim 58 in which the autoimmune disorder is selected from arthritis; ~~or~~ and Huntington's disease.

62. (previously presented) The method of claim 58 in which the neurological disease is Alzheimer's disease.

63. (previously presented) The method of claim 58 in which the genetic-related metabolic disorder is cystic fibrosis.

64. (new) A compound of claim 43, wherein:

X is NHOH, OH, NROR, or CRROH; and

Z is CR or N.

65. (new) The method of claim 57, wherein:

R^1 is (C_6 or C_{10}) aryl, optionally substituted by (C_1 - C_{10}) alkoxy, halo or (C_1 - C_{10}) alkylamino;

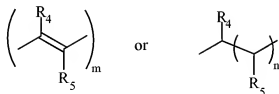
R^2 and R^3 are each independently hydrogen or methyl, or R^2 and R^3 optionally form a C_6 aryl;

n is equal to 0, 1 or 2;

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, wherein each R is independently selected from hydrogen, C_1 - C_6 alkyl or substituted C_1 - C_6 alkyl;

Y is O, 1, or 2 oxygen atoms;

Q represents



wherein:

m is an integer from 1 to 4;

n' is an integer from 1 to 8; and

R^4 and R^5 each independently represent hydrogen or methyl.

66. (new) The method of claim 57, wherein said compound of general formula (I) is:

6-Phenylsulfanyl-hexa-2,4-dienoic acid (6a),

6-(4-Chloro-phenylsulfanyl)-hexa-2,4-dienoic acid methyl ester (6b), or

6-Phenylsulfanyl-hexa-2,4-dienoic acid methyl ester (6c).

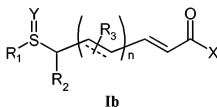
67. (new) A method of stimulating hematopoietic cells *ex vivo*, comprising administering an

effective amount of a compound of general formula (I).

68. (new) A method of accelerating wound healing in an individual, comprising administering to said individual a therapeutically effective amount of a compound of general formula (I).

69. (new) A method of protecting hair follicles in an individual, comprising administering to said individual a therapeutically effective amount of a compound of general formula (I).

70. (new) A compound of general formula (Ib)



wherein:

R^1 is (C_6 or C_{10}) aryl, (C_6 or C_{10}) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C_6 or C_{10}) heteroaryl, (C_3 - C_8) heterocycloalkenyl, (C_5 - C_8) cycloalkene ring, (C_5 - C_8) cycloalkyl, (C_5 - C_8) heterocycloalkyl or a combination thereof to form a linked or fused ring system, the cyclic moiety being optionally substituted with (C_1 - C_{10}) alkyl, (C_1 - C_{10}) alkenyl, (C_1 - C_{10}) alkynyl, (C_1 - C_{10}) alkoxy, (C_1 - C_{10}) thioalkoxy, hydroxyl, (C_1 - C_{10}) hydroxylalkyl, halo, (C_1 - C_{10}) haloalkyl, amino, amido, (C_1 - C_{10}) alkylamino, (C_1 - C_{10}) alkylcarbonyloxy, (C_1 - C_{10}) alkoxycarbonyl, (C_1 - C_{10}) alkylcarbonyl, (C_1 - C_{10}) alkylthiocarbonyl, (C_1 - C_{10}) alkylsulfonylamino, aminosulfonyl, (C_1 - C_{10}) alkylsulfinyl, or (C_1 - C_{10}) alkylsulfonyl;

R^2 and R^3 are each independently hydrogen or methyl, or R^2 and R^3 optionally form a (C_6 or C_{10}) aryl;

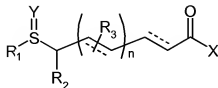
n is 0, 1 or 2;

X is hydroxamate (-NHOH); and

Y is 0, 1 or 2 oxygen atoms;

or a pharmaceutically acceptable salt thereof.

71. (new) The method of claim 57, wherein the compound of formula (I) has a structure of general formula (Ia):



wherein:

Ia
 R^1 is (C_6 or C_{10}) aryl, (C_6 or C_{10}) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C_6 or C_{10}) heteroaryl, (C_3 - C_8) heterocycloalkenyl, (C_5 - C_8) cycloalkene ring, (C_5 - C_8) cycloalkyl, (C_5 - C_8) heterocycloalkyl or a combination thereof to form a linked or fused ring system, the cyclic moiety being optionally substituted with (C_1 - C_{10}) alkyl, (C_1 - C_{10}) alkenyl, (C_1 - C_{10}) alkynyl, (C_1 - C_{10}) alkoxy, (C_1 - C_{10}) thioalkoxy, hydroxyl, (C_1 - C_{10}) hydroxylalkyl, halo, (C_1 - C_{10}) haloalkyl, amino, amido, (C_1 - C_{10}) alkylamino, (C_1 - C_{10}) alkylcarbonyloxy, (C_1 - C_{10}) alkoxycarbonyl, (C_1 - C_{10}) alkylcarbonyl, (C_1 - C_{10}) alkylthiocarbonyl, (C_1 - C_{10}) alkylsulfonylamino, aminosulfonyl, (C_1 - C_{10}) alkylsulfinyl, or (C_1 - C_{10}) alkylsulfonyl,
 R^2 and R^3 are each independently hydrogen, (C_1 - C_{12}) alkyl, unsaturated (C_2 - C_{12}) comprising one or more $C=C$ bond or $C\equiv C$ bond, (C_1 - C_{10}) alkoxy, (C_1 - C_{10}) thioalkoxy, hydroxyl, (C_1 - C_{10}) hydroxylalkyl, halo, or (C_1 - C_{10}) haloalkyl; or

R^2 and R^3 optionally form a (C_6 or C_{10}) aryl, (C_6 or C_{10}) arylalkyl, a 6- or 10-membered ring system having one or more heteroatoms in the ring, (C_3 - C_8) heterocycloalkenyl, (C_5 - C_8) cycloalkene ring, (C_5 - C_8) cycloalkyl, (C_5 - C_8) heterocycloalkyl linked or fused ring system, optionally containing up to 3 heteroatoms, e.g. oxygen, nitrogen, sulphur or phosphorous; or

R^1 and R^2 optionally form a (C_6 or C_{10}) aryl, (C_6 or C_{10}) arylalkyl, (C_6 or C_{10}) heteroaryl, (C_3 - C_8) heterocycloalkenyl, (C_5 - C_8) cycloalkene ring, (C_5 - C_8) cycloalkyl, (C_5 - C_8) heterocycloalkyl linked or fused ring system, optionally the ring formed is further substituted with a group R^1 as defined above, or the ring formed is fused to a further C_6 aryl group which is optionally substituted with a group R^1 as defined above, or a group R^1R^2N , with R^1 and R^2 as defined above;

n is 0, 1 or 2;

X is hydroxyl (-OH), -OR, NHR, hydroxamate (-NHOH), NHOR, NROR, NRNHR, or SR, wherein each R is independently hydrogen, C₁-C₆ alkyl or substituted C₁-C₆ alkyl; and

Y is 0, 1 or 2 oxygen atoms, or NR where R is H, OH, C₁-C₆ alkyl, or substituted C₁-C₆ alkyl;

or a pharmaceutically acceptable salt thereof.